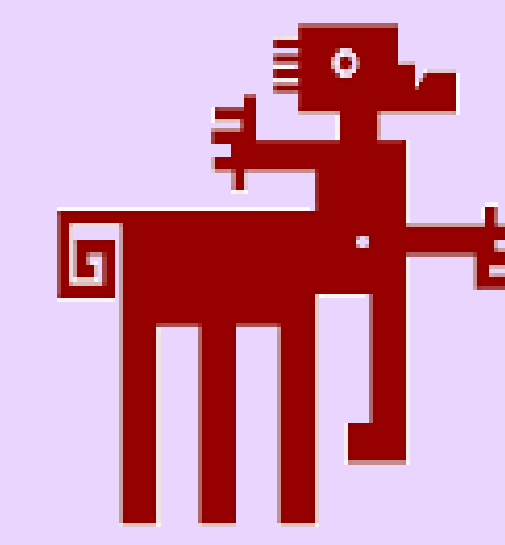


# PHYSIOTHERAPY IN THE RECOVERY OF ORTHOPEDIC AND TRAUMATOLOGY SURGERIES IN THE DOG



Universitat Autònoma  
de Barcelona

Yarait Prada Esteve  
Final degree project  
June 2019



FACULTAT DE  
VETERINÀRIA

## INTRODUCTION

- Physiotherapy comes from the Greek words *physis* (nature) and *therapeia* (treatment), so etymologically means “treatment for the nature” or “treatment by physical agents”.
- Sir Charles L. Strong (1939; UK)→ first application of physiotherapy in animals: adapts a faradic current device to his horses.
- Sport horses has been the main divers of the evolution of veterinary physiotherapy worldwide.
- Nowadays, small animals receive similar or more treatment than horses and we find more physiotherapy centres that give exclusive treatment to small animals.

## OBJECTIVES

- Briefly description about the most used techniques used in veterinary physiotherapy.
- Description about the most frequent traumatology pathologies with their surgical treatment and the most accurate physiotherapy protocol.



Left: small breed dog exercising in an exercise roll; Right: dog performing hand shaking exercises with weights.

## Most used physiotherapy techniques in dogs

Manual therapy	Active exercises	Physical agents
<ul style="list-style-type: none"><li>• Massage</li><li>• Passive Range of Motion (PROM)</li><li>• Stretching</li></ul>	<ul style="list-style-type: none"><li>• Balance boards and platforms</li><li>• Exercise balls and rolls</li><li>• Sit-to-stand</li><li>• Hand shaking</li><li>• Leash walking</li><li>• Stair climbing</li><li>• Treadmill walking</li><li>• Wheelbarrowing</li><li>• Dancing</li><li>• Vertical wave poles</li><li>• Cavaletti rails</li><li>• Aquatic therapy</li></ul>	<ul style="list-style-type: none"><li>• Cryotherapy</li><li>• Heat therapy</li><li>• Electrical stimulation</li><li>• Laser therapy</li><li>• Therapeutic Ultrasound</li><li>• Deep thermotherapy</li></ul>

## Described pathologies and protocols

Most frequent orthopedic conditions	Fractures
<ul style="list-style-type: none"><li>• OCD of humeral head</li><li>• Fibrotic contracture of the infraspinatus muscle</li><li>• Bicipital tenosynovitis</li><li>• Ununited anconeal process</li><li>• Fragmented medial coronoid process of the Ulna</li><li>• Carpal and tarsal hyperextension</li><li>• Injuries of the common calcaneal tendon</li><li>• Hip dysplasia</li><li>• Legg-Calve-Perthes disease</li><li>• Cranial cruciate ligament rupture</li><li>• Patella luxation</li></ul>	<ul style="list-style-type: none"><li>• Articular fractures</li><li>• Distal femoral fractures</li><li>• Proximal femoral fractures</li><li>• Radius and Ulna fractures</li><li>• Carpal/tarsal, metacarpal/metatarsal and phalangeal fractures</li><li>• Pelvic fractures</li><li>• Tibia and fibula fractures</li></ul>

## CONCLUSIONS

- Veterinary physiotherapy is a recent area of work that is in expansion.
- Very similar protocols for the different surgical interventions in traumatology: all of them include inflammation control and exercise to improve ROM, strength, coordination and balance.
- Principal objective of physiotherapy→ good functional recovery to ensure good life quality
- Fracture rehabilitation→ progressive weight bearing to prevent implant failure
- Scarce specific bibliography in veterinary physiotherapy and few efficacy studies.